

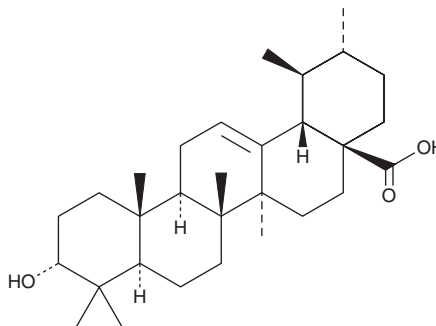
# PRODUCT INFORMATION



## 3-*epi* Ursolic Acid

Item No. 36528

**CAS Registry No.:** 989-30-0  
**Formal Name:** 3 $\alpha$ -hydroxy-urs-12-en-28-oic acid  
**Synonyms:** 3-Epiursolic Acid,  $\alpha$ -Ursolic Acid  
**MF:** C<sub>30</sub>H<sub>48</sub>O<sub>3</sub>  
**FW:** 456.7  
**Purity:**  $\geq$ 98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years  
**Item Origin:** Plant/*Eriobotrya japonica* (Thunb.) Lindl.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

3-*epi* Ursolic acid is supplied as a solid. A stock solution may be made by dissolving the 3-*epi* ursolic acid in the solvent of choice, which should be purged with an inert gas. 3-*epi* Ursolic acid is soluble in the organic solvent DMSO.

### Description

3-*epi* Ursolic acid is a pentacyclic triterpenoid that has been found in *M. lingua* and has diverse biological activities.<sup>1-4</sup> It inhibits glycogen phosphorylase and cathepsin L but not cathepsin B (IC<sub>50</sub>s = 19, 6.5, and >250  $\mu$ M, respectively).<sup>1,2</sup> 3-*epi* Ursolic acid (20-50  $\mu$ M) inhibits entry of bovine parainfluenza virus 3 into MDBK cells.<sup>3</sup> It also inhibits the proliferation of MCF-7 breast cancer cells (IC<sub>50</sub> = 18.6  $\mu$ g/ml).<sup>4</sup>

### References

1. Wen, X., Sun, H., Liu, J., *et al.* Naturally occurring pentacyclic triterpenes as inhibitors of glycogen phosphorylase: Synthesis, structure-activity relationships, and X-ray crystallographic studies. *J. Med. Chem.* **51**(12), 3540-3554 (2008).
2. Ramalho, S.D., De Sousa, L.R.F., Nebo, L., *et al.* Triterpenoids as novel natural inhibitors of human cathepsin L. *Chem. Biodivers.* **11**(9), 1354-1363 (2014).
3. Pan, W., Hui, N., Wang, H., *et al.* Entry of bovine parainfluenza virus type 3 into MDBK cells occurs via clathrin-mediated endocytosis and macropinocytosis in an acid-dependent manner. *Vet. Microbiol.* **259**, 109148 (2021).
4. Qamar, K.A., Dar, A., Siddiqui, B.S., *et al.* Antiproliferative effects of *Ocimum basilicum* methanolic extract and fractions,oleanolic acid and 3-*epi*-ursolic acid. *Curr. Tradit. Med.* **6**(2), 134-146 (2020).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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